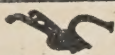




Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

	<h1>Monthly News Letter</h1>	
	<h2>Bureau of Agricultural Engineering</h2> <p>U. S. DEPARTMENT OF AGRICULTURE</p>	
	<p>For Bureau staff only. Not for publication.</p>	
	<div style="display: flex; justify-content: space-around; align-items: center;">         </div>	

Vol. 7.

September 25, 1937

No. 1.

W. W. McLaughlin has returned to Berkeley after spending eight days in the Washington office conferring with Mr. McCrory and others regarding the work of the Irrigation Division.

At a conference on irrigation of pear orchards, held recently at Medford, Ore., representatives of the Irrigation Division, the Bureau of Plant Industry, and the Oregon Experiment Station, decided to make studies on lighter soils than have been used so far and to include, if possible, at least one variety in addition to the Anjou pear. W.W. McLaughlin, M. R. Lewis, R.A. Work, and R.B. Allyn, took part in the conference along with two representatives each from the experiment station and the Bureau of Plant Industry. Arrangements are now being made for the use of an excellent orchard of Anjous and Bartletts at Wenatchee. The soil is sandy loam, the water table is 40 feet down, and there is an adequate underground irrigation system.

To assist new snow survey cooperators with details of the work and to lay out new courses and inspect equipment, J. C. Marr traveled nearly 5,000 miles over the Snake River Drainage snow-course network. Many of the former observers had been transferred to other fields. Following out the plan to supplement the snow survey and irrigation water information with reports of value in winter sports activities, Mr. Marr made arrangements to get reports from Sun Valley. Similar reports may also be obtained from the Payette Lakes region. These two localities are the most important winter recreational areas in Idaho.

R. A. Work has prepared sketch maps of 14 new snow courses in northern California and Oregon. He discussed the question of labor for building shelter cabins on the courses with State W.P.A. directors.

Under the project "Utah Lake Drainage Area Investigation", carried on by the Bureau in cooperation with the Utah Agricultural Experiment Station and the Utah, Wasatch, and Summit County Irrigation Companies, systematic detailed field surveys of irrigation land on the Provo River area, Utah, were begun August 2 with a staff of ten men. O.W. Israelsen reports that approximately 20,000 acres in Utah and Wasatch counties was covered during the month.

On the supplemental irrigation project in South Dakota, Dean C. Muckel assisted in sinking a shallow well near Westover on a project approved by the Resettlement Administration. The work was completed August 18 and tests showed a capacity of 80 gallons per minute. For irrigation purposes a battery of at least two wells was recommended. In company with the agricultural agent of the Chicago, Milwaukee, St. Paul and Pacific Railroad, Mr. Muckel visited several proposed irrigation projects along the White and Little White Rivers, also two cooperative irrigation projects supervised by the Indian Service. A conference of Messrs. Boyd, Rohwer and Muckel concerning the supplemental irrigation project was held at Pierre.

- - -

In connection with irrigation experiments being carried on under the direction of Dean W. Bloodgood at the Bard, Calif. Experiment Station, Mr. Bloodgood reports that entomologists of the Bureau of Entomology and Plant Quarantine are studying certain insects infesting cotton plants.

- - -

Harry F. Blaney returned to duty August 14 after about two months vacation in Europe and the East. Mr. Blaney's observations of agricultural practices in European countries included sub-irrigation in Holland similar to that practiced in San Luis Valley, Colorado; crops such as alfalfa (or clover), corn, grain, and vegetables planted in 25 foot strips in the same field, and harvested by hand, in Germany, Italy, and France; trees planted in vineyards and used as supports on which to train the vines - several varieties of native trees being used for this purpose, and in some instances fruit trees.

* * *

The Central District drainage camps reported excavation of 1,980,000 cubic yards during August, requiring 27,452 man-days. This is the largest quantity excavated in any month except October, 1936. Clearing amounted to 4,382,000 square yards, requiring 30,088 man-days. Tile lines reconditioned totalled 40,700 lineal feet, requiring 5,807 man-days. The total man-days amounted to 76,635, the record since March, 1937.

Instructions have been issued that it will be necessary to discontinue an Ohio, an Indiana and an Illinois camp effective October 1, 1937. After this reduction 31 drainage camps will remain in the Central District. A reduction in operating allowances and restrictions on employment of personnel will no doubt make it necessary to reduce drastically the volume of work during the remainder of the fiscal year.

* * *

W. H. Redit started the planting operations on spinach at Norfolk, Virginia, on September 14 in connection with fertilizer placement studies. This terminates the 1937 planting operations on the Fertilizer Machinery Project which began March 17.

- - -

E. M. Dieffenbach will be transferred to Logan, Utah, in October, to start a cooperative project on weed control with the Agricultural Experiment Station of that state.

- - -

John W. Randolph reports that daily rains and heavy dews during the last week of August and first two weeks of September were very unfavorable for cotton picking in Alabama, and especially so for plot work. The season in the Prattville area was at least 10 days late. Seed sprouted in some of the bolls and the quality of much of the lint has been lowered. The tillage on certain plots in the Prattville Field has caused the cotton to hold its leaves which have shed much rain off the bolls and kept this cotton in better condition than that on plants that have shed their leaves. The fields on which most of the field tillage studies with cotton were conducted have been sold and it may be necessary to discontinue the field phases of the Cotton Production Machinery Project.

- - -

The unit for determining the force reactions of disk plows is being used in an extensive series of tests on the soil plots of the tillage laboratory. A preliminary examination of the data obtained shows not only a marked difference in the reaction on the disk caused by the various soils but there is a considerable difference in the direct longitudinal draft for the various speeds. For example, in the Cecil Clay plot an increase in speed from 2.45 miles per hour to 4.08 increased the direct pull by nearly 50 percent; in the Norfolk Sand plot an increase in speed from 4.9 miles per hour to 6.03 miles per hour increased the direct pull by $33\frac{1}{3}$ per cent. In connection with the above disk observations, soil compaction measurements are being made with the pentrometer device used a few years ago for certain field measurements.

- - -

S. W. McBirney reports that field tests are being made again this year near Davis, California, with a new model of the Scott-Viner sugar-beet harvester. The tests were started later than last year as the machine was not available earlier, but the field work with the machine will be continued longer.

- - -

The Colorado Experiment Station at Fort Collins has assigned a ten-acre field to E. M. Mervine for experimental work on seedbed preparation and planter trials of sugar beets. He will also run "mechanical thinning" trials on the field.

- - -

W. R. Humphries is at Stoneville, Miss., making field tests and observations of mechanical cotton pickers. This project is conducted jointly by the Bureau of Agricultural Engineering, the Mississippi Agricultural Experiment Station and the Bureau of Agricultural Economics.

- - -

A potato digger is being altered at the Fertilizer Machinery Laboratory, Arlington, Virginia, for experiments in harvesting sweet potatoes. W.M. Hurst has been assigned to this work which is in cooperation with a sweet potato starch factory at Laurel, Miss.

- - -

W. M. Hurst and George Stafford have recently constructed seed scarifying equipment for laboratory use by the Bureau of Biological Survey and the Bureau of Plant Industry.

* * *

M. A. R. Kelley has returned from a field trip through the South and Midwest where he made observations and collected material for a Farmers' Bulletin on farm fencing.

- - -

Headquarters of W. R. Swanson have been changed from Hays, Kansas, to Ames, Iowa, where he will conduct tests on storage of ear corn.

- - -

A. D. Edgar has been transferred to Cadillac, Michigan, where he will study potato storages and the possibility of adapting to that climate the principles found to be effective for good storage in Maine.

- - -

The agricultural colleges of the Northeastern States in co-operation with this Bureau and the Extension Service have selected a number of drawings for various types of farm buildings that are especially suitable for conditions in that area. A catalogue illustrating the drawings has been published as U.S.D.A. Miscellaneous Publication 278, a copy of which may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C., for 30 cents. A special feature is the reproduction of many of the working drawings which should be of interest to architects, contractors and builders, as well as to agricultural engineers. The plans illustrated in the catalogue may be purchased in the form of blueprints drawn to scale, from the colleges listed in the catalogue.

- - -

On September 1, 2, and 3 a conference was held at Salt Lake City between representatives from the Agricultural colleges of the western States to formulate a farm building plan service for the region. S. P. Lyle, Wallace Ashby, and T.A.H. Miller represented the Bureau and assisted in selecting drawings.